

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with deleted material crossed out and new material underlined to show the changes made.

Please amend claims 1 and 2, and add new claims 3 – 15.

1. (Currently Amended) A tunable discrete LC filter comprising:
an input for receiving an input signal for processing, said input signal comprising
a plurality of frequencies;
control input for receiving information to select at least one band of frequencies
for processing;
first inductor bank for filtering a first band of frequencies;
second inductor bank for filtering a second band of frequencies; and
switch circuit comprising a switching element and an isolation element, coupling
said input signal to said first inductor bank and said second inductor bank,
said switching element comprising a series resistance and said isolation
element for isolating said series resistance from ~~so as to electrically isolate~~
~~said switching of said input signal to said first inductor bank and or said~~
second inductor bank, ~~respectively~~ so as to enhance a Q factor for said LC
filter, said switch circuit for selecting said first inductor bank if said first

band of frequencies is selected, and for selecting said second inductor bank if said second band of frequencies is selected.

2. (Currently Amended) A method for tuning a discrete LC filter, said method comprising the steps of:

receiving an input signal for processing, said input signal comprising a plurality of frequencies;

receiving information to select at least one band of frequencies for processing;

switching said input signal to a first inductor bank ~~first signal path~~ if a first band of frequencies ~~was~~ were selected by isolating a series resistance generated from a switch from said first inductor bank;

~~coupling a first inductor bank to said first signal path;~~

~~electrically isolating said switching of said input signal from said first inductor bank;~~

filtering said first band of frequencies in said first inductor bank;

switching said input signal to a second inductor bank ~~second signal path~~ if a second band of frequencies ~~was~~ were selected by isolating a series resistance generated from a switch from said second inductor bank;

~~coupling a second inductor bank to said second signal path;~~

~~electrically isolating said switching of said input signal from said second inductor bank;~~ and

filtering said second band of frequencies in said second inductor bank.

3. (New) The tunable discrete LC filter as set forth in claim 1, wherein said isolation element comprises an amplifier.

4. (New) The tunable discrete LC filter as set forth in claim 3, wherein said amplifier comprises an input stage and an output stage.

5. (New) The tunable discrete LC filter as set forth in claim 4, wherein said output stage comprises a transconductance amplifier.

6. (New) The tunable discrete LC filter as set forth in claim 3, wherein said amplifier comprises a differential amplifier.

7. (New) The tunable discrete LC filter as set forth in claim 1, wherein said first band of frequencies comprises a VHF television band of frequencies and said second band of frequencies comprises a UHF television band of frequencies.

8. (New) The tunable discrete LC filter as set forth in claim 1, wherein said switching element comprises metal oxide semiconductor ("MOS") transistors.

9. (New) A television tuner comprising:

an input for receiving a television signal for processing, said television signal comprising a plurality of frequencies;

control input for receiving information to select at least one band of frequencies
for processing said television signal;
tunable inductive-capacitive ("LC") filter comprising:
at least one capacitive bank;
first inductor bank for filtering a first band of frequencies of said
television signal;
second inductor bank for filtering a second band of frequencies of said
television signal; and
switch circuit comprising a switching element and an isolation element,
coupling said television signal to said first inductor bank and said
second inductor bank, said switching element comprising a series
resistance and said isolation element for isolating said series
resistance from said first inductor bank and said second inductor
bank so as to enhance a Q factor for said tunable LC filter, said
switch circuit for selecting said first inductor bank if said first band
of frequencies is selected, and for selecting said second inductor
bank if said second band of frequencies is selected.

10. (New) The television tuner as set forth in claim 9, wherein said isolation
element comprises an amplifier.

11. (New) The television tuner as set forth in claim 10, wherein said amplifier
comprises an input stage and an output stage.

12. (New) The television tuner as set forth in claim 11, wherein said output stage comprises a transconductance amplifier.

13. (New) The television tuner as set forth in claim 10, wherein said amplifier comprises a differential amplifier.

14. (New) The television tuner as set forth in claim 9, wherein said first band of frequencies comprises a VHF television band of frequencies and said second band of frequencies comprises a UHF television band of frequencies.

15. (New) The television tuner as set forth in claim 9, wherein said switching element comprises metal oxide semiconductor ("MOS") transistors.